



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/901,531

07/09/2001

Brian C. Barnes

2000.054600

7123

23720 7590 01/11/2008  
WILLIAMS, MORGAN & AMERSON  
10333 RICHMOND, SUITE 1100  
HOUSTON, TX 77042

EXAMINER

BROWN, CHRISTOPHER J

ART UNIT

PAPER NUMBER

2134

MAIL DATE

DELIVERY MODE

01/11/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

UNITED STATES PATENT AND TRADEMARK OFFICE

---

BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

---

*Ex parte* BRIAN C. BARNES, DAVID W. SMITH, TERRY L. COLE,  
RODNEY SCHMIDT, GEOFFREY S. STRONGIN,  
and MICHAEL BARCLAY

---

Appeal 2007-2631  
Application 09/901,531  
Technology Center 2100

---

Decided: January 11, 2008

---

Before JAMES D. THOMAS, HOWARD B. BLANKENSHIP, and  
JAY P. LUCAS, *Administrative Patent Judges*.

BLANKENSHIP, *Administrative Patent Judge*.

DECISION ON APPEAL

This is an appeal under 35 U.S.C. §§ 6(b), 134(a) from the final rejection of claims 1-4, 6-15, and 17-21.

We reverse.

Representative claim 1 reads as follows:

1. A communications system, comprising:

a physical layer hardware unit adapted to communicate data over a communications channel in accordance with assigned transmission parameters, the physical layer hardware unit being adapted to receive an incoming signal over the communications channel and sample the incoming signal to generate a digital received signal; and

a processing unit adapted to execute a software driver including program instructions adapted to extract control codes from the digital received signal, generate an authentication code based on at least one extracted control code, and transfer the control codes and the authentication code to the physical layer hardware unit, wherein the physical layer hardware unit is adapted to signal a security violation in response to the control codes being inconsistent with the authentication code.

The Examiner relies on the following references as evidence of unpatentability:

Nay	US 5,237,567	Aug. 17, 1993
Spelman	US 5,680,458	Oct. 21, 1997
Mergard	US 5,881,248	Mar. 9, 1999
Whitmire	US 6,115,817	Sep. 5, 2000
Roeck	US 6,594,305 B1	Jul. 15, 2003

Claims 1, 12, and 21 are independent. Claims 1, 7-12, and 18-21 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Roeck and Nay. Dependent claims 2-4, 6, 13-15, and 17 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the basic combination of Roeck

and Nay, in addition to the teachings of Spelman, Mergard, or Whitmire. Claims 5 and 16 are objected to as being dependent on rejected claims.

Appellants argue in the briefs that the Examiner has used improper motivation to combine the teachings of Roeck and Nay as applied against the independent claims. Appellants also argue that, even if combined, the references do not contain all the claim elements.

The Examiner finds that Roeck discloses a hardware unit (cable modem) adapted to receive an incoming signal over a communications channel, and which accepts control codes over the communications channel. The Examiner further finds that Roeck teaches that the hardware unit communicates with assigned transmission parameters. (Ans. 3.) As described in columns 7 and 8 of Roeck, the modem receives data for adjusting and configuring the modem. Parameters may include power level offset, timing offset, and frequency adjustments.

The rejection applied against the independent claims relies on Nay (col. 37, ll. 35-51) for the teaching of generating an authentication code from data and transferring the data and authentication code to a unit, and signaling a security violation if the codes are inconsistent. (Ans. 3.)

Nay at column 37, lines 35 through 63 teaches bus data integrity by using an address parity bit to provide an alarm if the address over the bus is faulty. Further, seven extra bits are sent over the bus to accompany the data word, to allow discovery of errors that might occur during passage over the system bus, as well as any storage errors.

Instant claim 1 requires, *inter alia*, a processing unit adapted to execute a software driver including program instructions adapted to extract control codes from the digital received signal, generate an authentication code based on at least one extracted control code, and transfer the control codes and the authentication code to the physical layer hardware unit.

Even assuming the teachings of Roeck and Nay could be properly combined, we agree with Appellants that the references fail to teach at least the above-noted limitations of claim 1. The rejection fails to show a software driver that extracts control codes from a received signal, and transfer the control codes along with the generated authentication code to a physical layer hardware unit as claimed.

Instant claim 12 requires the steps of receiving digital data over a communications channel, and transferring extracted control codes and a generated authentication code to a physical layer hardware unit of the transceiver. Instant claim 21 recites similar limitations. The rejection fails to show disclosure or suggestion of at least these elements of the claims.

We do not find all the teachings in Roeck and Nay that are attributed to the references. The rejection does not offer any convincing explanation with respect to how or why the relevant claim recitations might be disregarded. The references of Spelman, Mergard, and Whitmire as applied in further combination against dependent claims do not remedy the deficiencies in the rejection applied against the independent claims. We therefore cannot sustain any of the rejections on appeal.

Appeal 2007-2631  
Application 09/901,531

REVERSED

ce

WILLIAMS, MORGAN & AMERSON  
10333 RICHMOND, SUITE 1100  
HOUSTON TX 77042